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COMPACT HI-FI COMPONENT SYSTEM

R-K711 INSTRUCTION MANUAL

Kenwood Corporation



Declaration of Conformity with regard to the EMC Directive 2004/108/EC

Manufacturer:

Kenwood Corporation 2967-3 Ishikawa-machi, Hachioji-shi, Tokyo, 192-8525 Japan

EU Representative's:

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Safety Precautions

Before Applying Power

A Caution: Read this page carefully to ensure safe operation.

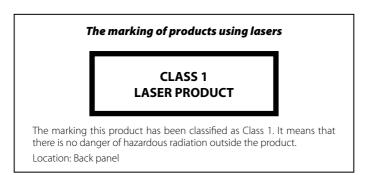
Units are designed for operation as follows.

Australia	AC 240 V only
Europe	AC 230 V only

Safety precautions

WARNING : TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE"WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.



IMPORTANT SAFETY INSTRUCTIONS

A Caution: Read this page carefully to ensure safe operation.

Read Instructions

- All the safety and operating instructions should be read before the product is operated.

Retain Instructions

– The safety and operating instructions should be retained for future reference.

Heed Warnings

- All warnings on the product and in the operating instructions should be adhered to.

Follow Instructions

- All operating and use instructions should be followed.

1. Cleaning

– Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

2. Attachments

- Do not use attachments not recommended by the product manufacturer as they may cause hazards.

3. Water and Moisture

- This product shall not be exposed to dripping and splashing - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like. Do not place an object containing liquid, such as a flower vase, on the appliance.

4. Accessories

- Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.



5. Ventilation

– Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

6. Power Sources

- This product should be operated only from the type of power source indicated on the product. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

7. CAUTION – Polarization

- This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

Continued to next page

IMPORTANT SAFETY INSTRUCTIONS

8. Power Cord Protection

- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

9. Lightning

- For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

10. Overloading

- Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

11. Object and Liquid Entry

- Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

12. Servicing

- Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

13. Damage Requiring Service

 Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) When the power-supply cord or plug is damaged,
- **b)** If liquid has been spilled, or objects have fallen into the product,
- **c)** If the product has been exposed to rain or water,

- **d)** If the product does not operate normally by following the operating instructions.
- e) If the product has been dropped or damaged in any way, and
- When the product exhibits a distinct change in performance – this indicates a need for service.
- g) If an abnormal smell or smoke is detected.

14. Replacement Parts

 When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

15. Safety Check

- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

16. Wall or Ceiling Mounting

 This product should be mounted to a wall or ceiling only as recommended by the manufacturer.

17. Heat

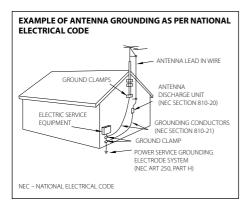
– This product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat. Do not place a flaming object, such as a candle or lantern, or near the product.

18. Power Lines

– An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

19. Outdoor Antenna Grounding

– If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



Notes:

- 1. Item 7 is not required except for grounded or polarized equipment.
- 2. Item 19 complies with UL in the U.S.A.

Information on Disposal of Old Electrical and Electronic Equipment (applicable for EU countries that have adopted separate waste collection systems)



Products with the symbol (crossedout wheeled bin) cannot be disposed as household waste. Old electrical and electronic equipment should be recycled at a facility capable of handling these

items and their waste byproducts. Contact your local authority for details in locating a recycle facility nearest to you. Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.

What the R-K711 Can Do



Wide range of recording formats Play Discs

As well as music CDs, the R-K711 will also play discs containing recorded audio files (MP3/ WMA/AAC).



Supports a host of component types External Input Terminals

As well as analog input terminals for record players or cassette decks, the R-K711 also features an input terminal for digital audio players.

It even has a digital input terminal with sampling rate converters so that you can use components such as digital tuners.

Create the perfect sound space for your installation setting Room Equalizer

The R-K711 automatically optimizes the audio settings for your room layout and system location.

You simply set up the microphone supplied with the R-K711 in the listening position and then start up the Room Equalizer.

Realistic audio playback with near-original sound **Supreme EX**

Original Kenwood audio enhancement technology that reproduces the high-bandwidth component in the original sound produces incredibly realistic audio that restores almost all the nuances of the original performance.

This reproduces high-range bands of 20 kHz and higher from audio CD or digital input.

It also reproduces the high-range bands lost through data compression when you play audio files (MP3/WMA/AAC).



Choose your favorite audio quality Digital Sound Equalizer Function

This includes "TONE/TURN OVER", which you can use to select detailed audio characteristics for the low-, mid- and high-range bands, as well as "D-BASS" which allows you to add super-bass functionality.

You can also register 3 pre-loaded "sound presets" for each setting, making it even easier to select your favorite sound quality.

Contents



To ensure safety, read the items carrying this marking carefully.

Before Using the System

Be sure to read these precautions.

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Accessories	. 8
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Connecting the System	10
Component Names and Functions	14
How to Use This Manual	18
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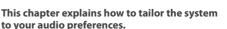
Procedures by Input Source P.25

This chapter explains how to connect and use the system with the different input sources.

- CD
- Receiving Broadcast Stations
- RDS (Radio Data System)
- External Components
- D.AUDIO



Audio Settings P.47



- ROOM EQ (Room Equalizer)
- Digital Sound Equalizer
- Sound Presets
- Supreme EX
- BALANCE

Component Settings P.61

This chapter explains how to select the settings for the R-K711.

- Setting the Timer
- Display Settings
- Setting the Time
- Auto Power Save (A.P.S.)

Maintenance



This chapter explains how to store and maintain your system so that it continues to give pleasure for many years to come.

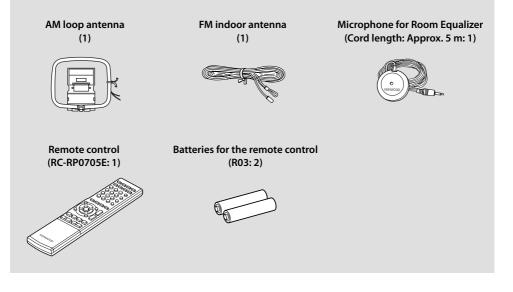
- Messages
- Troubleshooting
- Glossary of Terms
- Care and Storage
- Specifications





Accessories

Check that all accessories are present in the package.

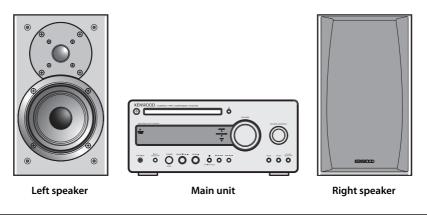


If any accessories are missing, or if the unit is damaged or fails to operate, notify your dealer immediately. If the unit was shipped to you directly, notify your shipper immediately. Kenwood recommends that you retain the original carton and packing materials in case you need to move or ship the unit in the future. Keep this manual handy for future reference.

Installing the System

Notes on installing the system

- Always install the system on a flat, stable surface. When installing the system on a stand of some sort, be sure to check the strength of the stand.
- The magnets used in the speakers may cause color irregularities on TV or PC screens. Do not set up the speakers too close to a TV or PC.



Observe the following cautions when installing the system. Insufficient heat radiation may build up internal heat and cause a malfunction or fire hazard.

- Do not place an object that may hinder heat radiation on the system.
- Leave the spaces specified below around the cabinets of the main unit. Top panel: 50 cm or more Side panel: 10 cm or more Back panel: 10 cm or more

Install the system so that the power outlet is easily accessible from the user, and unplug the power cord from the power outlet immediately in case of a trouble.

Note that the power supply to the system is not shut down completely by simply setting the power key to OFF.

To shut down the power supply completely, it is required to unplug the power cord.

Getting the best acoustic effect

A CAUTION

The sound will vary depending on the positioning of the speakers. To get the best possible sound quality, note the guidelines below.

- Ensure that the surroundings for the left and right speakers are as identical as possible. Set up the left and right speakers away from the wall and hang thick curtains on any windows to minimize echoes or reverberation.
- Place the left and right speakers as far apart as possible.
- Position the speakers at the same height as your ears when you are using the system.

Connecting the System

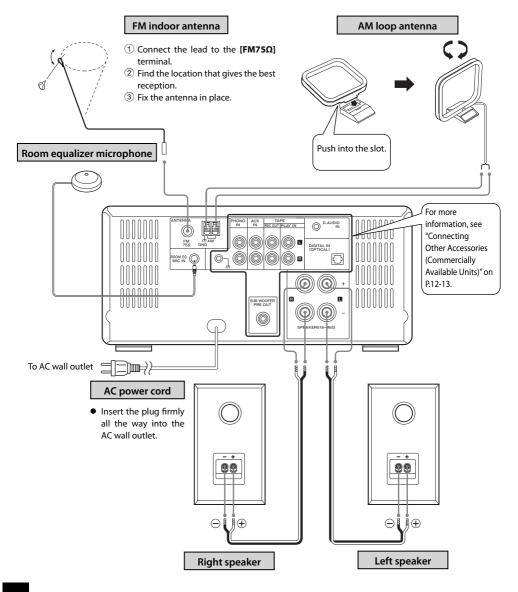
Main Connections

Ensure that all the cords are securely connected. Loose or incomplete connections may result in noise interference or no sound at all.

Caution for

connection

Do not plug the AC power cord into an AC wall outlet until all the connections are completed. Before disconnecting any cords or cables, always turn the main unit off and unplug the power cord from AC wall outlet.



Microcomputer malfunctions

If the system is connected correctly and still does not operate normally or shows display errors, reset the microcomputer. (P.75)

Connecting the AM loop antenna

The antenna supplied with the system is for indoor use. Place it as far as possible away from the main unit, your TV set, the speaker cords and the power cord and point it in the direction that gives the best reception.

• Connecting the antenna cord

Connect the AM antenna cord to the **[AM]** and **[//GND]** terminals, as shown on the right.



Connecting the FM indoor antenna

The antenna supplied with the system is a basic antenna for indoor use. For stable signal reception, the use of an outdoor antenna (commercially available unit) is recommended. To connect an outdoor antenna, first remove the indoor antenna.

Connecting the speakers

Notes on connecting the speaker cords

Never short-circuit the positive (+) and negative (-) ends of the speaker cords. (Do not touch the + and – cords together.) Mistakenly reversing the positive and negative polarity will result in unnatural sound and unclear sound source (e.g. musical instruments) locations.

Preparing the ends of the speaker cords
 Twist the plastic sleeve on the end of the cord as you pull it off.





Connecting the speaker cords







Connecting Other Accessories (Commercially Available Units)



- When a related system component is connected, read the instruction manual for that component also.
- Ensure that all the cords are securely connected. Loose or incomplete connections may result in noise interference
 or no sound at all.

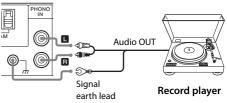
Caution for outdoor antenna installation

Since antenna installation necessitates skill and experience, always consult your dealer before installation. The antenna should be placed at a distance from the power distribution wires. Otherwise, an electric shock accident may occur if the antenna falls down.

PHONO IN

Connect record players with MM cartridges to the **[PHONO IN]** terminal on the rear panel of the main unit.

- The [¹/₁] (earth) terminal is used to reduce noise reduction when an analog record player is connected to the system. It is not an earth terminal for safety purposes.
- Record players with built-in equalizer amplifiers should be connected to the [AUX IN] terminal.
- You cannot connect a record player with an MC cartridge directly to the main unit. Connect a dedicated equalizer amplifier to the record player and then connect it to the [AUX IN] terminal.

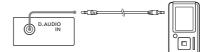


(with MM cartridge)

D.AUDIO IN

Connect digital audio players to the **[D.AUDIO IN]** terminal on the rear panel of the main unit.

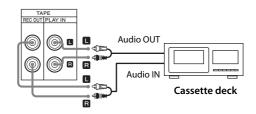
- If you connect a Kenwood player that supports digital audio link using the dedicated cable, you can control the player from the main unit and the remote control. (P.44) It can be connected using a 3.5 mm stereo mini-plug cable (commercially available unit).
- When you are not using the digital audio player, unplug the mini-plug cable from the main unit.



Digital audio player

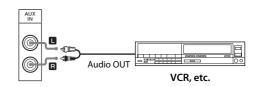
TAPE REC OUT/PLAY IN

Connect the audio output and audio input terminals on the cassette deck to the **[TAPE PLAY IN]** and **[TAPE REC OUT]** terminals respectively on the rear panel of the main unit.



AUX IN

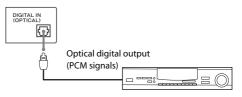
Connect the audio OUT terminals on components such as VCRs to the **[AUX IN]** terminal on the rear panel of the main unit.



DIGITAL IN (OPTICAL)

Connect the optical digital output terminals on components such as digital tuners to the **[DIGITAL IN (OPTICAL)]** terminal on the rear panel of the main unit.

• Set the digital audio output on connected components to "PCM".



Digital tuner, etc.

SUB WOOFER PRE OUT

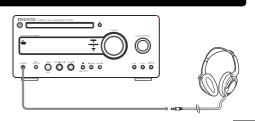
Connect a subwoofer (such as the optional SW-40HT) to the [SUB WOOFER PRE OUT] terminal on the rear panel of the main unit.



Powered Subwoofer

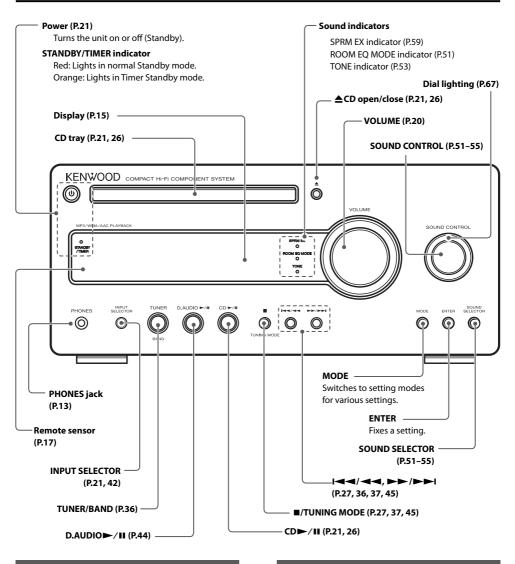
PHONES

Plug headphones equipped with a 3.5 mm stereo miniplug into the **[PHONES]** jack on the front panel of the main unit.



Component Names and Functions

Main unit



Standby Mode

While the **[STANDBY/TIMER]** indicator on the main unit is lit, the unit is using a very weak current to maintain the built-in memory. This is called Standby mode. When the main unit is in this mode, you can turn it on using the remote control.

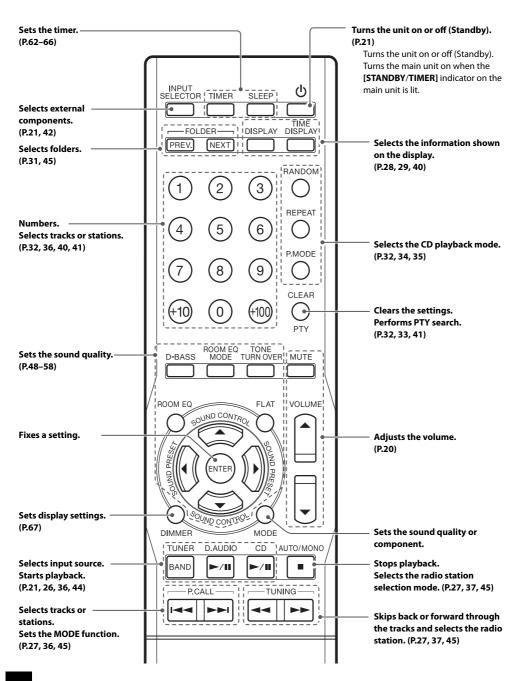
One-touch Operation

The main unit features a convenient one-touch operation function. When the main unit is in Standby mode, you can turn it on by pressing the **[TUNER/BAND]**, **[CD** / **11**] or **[D.AUDIO** / **11**] key. If there is a disc in the unit, playback begins.

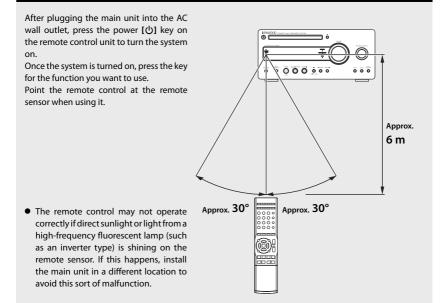
Displays shown in this manual Display may differ from the actual displays. REPEAT TUNED Lights during CD all-tracks Lights when you are tuned to a radio station. (P.37) repeat playback. (P.35) ST. REPEAT ONE Lights when you are receiving a stereo broadcast. (P.37) Lights during CD single-track AUTO repeat playback. (P.35) Lights during auto tuning. Turns off during manual tuning. (P.37) RDS Lights when an RDS broadcast is received. (P.40) Displays numbers and text. PTY Lights in the PTY search mode. Lights when an audio file or Lights when there is a CD in folder is selected. (P.31) Displays the sound the CD tray. (P.26) preset number. (P.56, 57) Flashes when the sound ismuted. (P.20) 000 MUTE BoomEQ D-Bass 101 REPEAT TUNED ST. AUTO RDS PTY ONE ΤĪĹ CDD RDM (-Tu 'AM kHz 00 30 10 5 3 1 0 (-dB) • MHz Displays the level meters. Lights when CD You can turn this display on or off. playback is paused. (P.67) (P.27) Displays the clock, the elapsed time or the frequency. Lights during CD FM playback. (P.26) Lights in FM reception mode. (P.37) AM Lights in CD random Lights in AM reception mode. (P.37, 69) playback mode. (P.34) TTL Lights during CD playback when the elapsed time and remaining time for the entire disc are displayed. (P.28) kHz Lights in CD program Displays the AM reception frequency. playback mode. (P.32) MHz Displays the FM reception frequency. Lights when the program timer is set. (P.63) Lights when the sleep timer is Lights when a super-bass (D-BASS) set. (P.62) level is selected. (P.52) Lights when Auto Power Save Lights when measurement of the (A.P.S.) is set. (P.70) room's acoustic characteristics is completed. (P.49)

Remote control

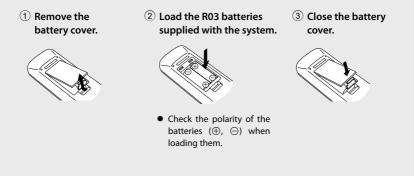
Remote control keys with the same names as keys on the main unit have the same functions as the main unit keys.



Using the remote control



Loading the remote control batteries

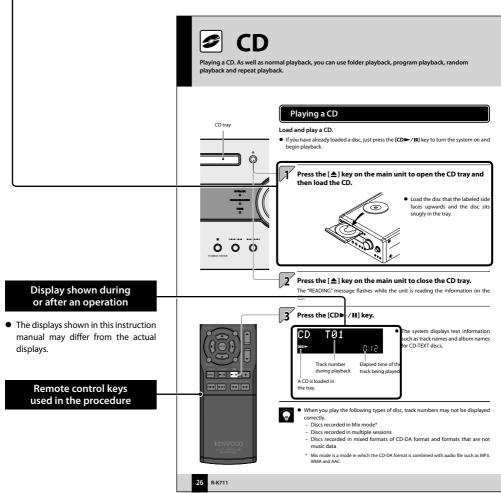


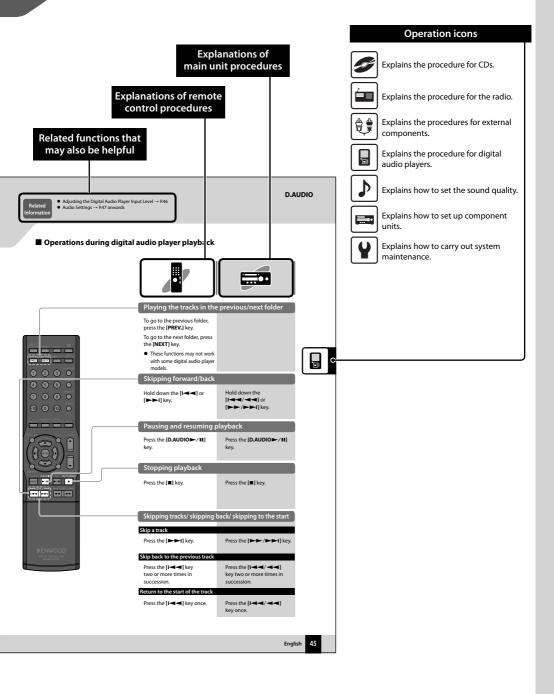
- The batteries supplied with the system are only for operation checking and may only last for a short time.
- When replacing the batteries, always load 2 new batteries.

How to Use This Manual

Operation procedure

While this system can be controlled from either the remote control or the main unit, the explanations in this manual primarily describe operation procedures using the remote control.



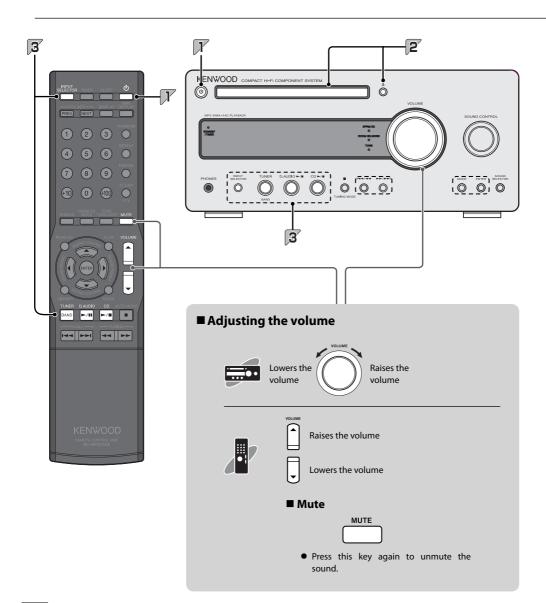


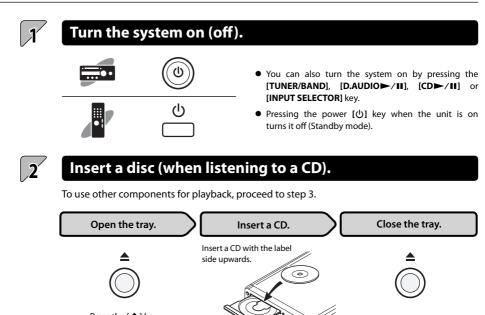
Basic Operation

This section describes some basic procedures for using the system, such as tuning the radio and playing audio from a CD, a digital audio player and an external component.

Preparations

Check the connections. (P.10–13) Have the remote control ready. (P.17)





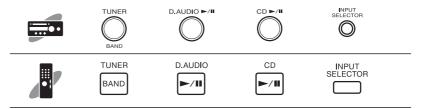
Press the [] key. (Only available on the main unit.)



Play.

Press the Play/Pause key for the input source. See "Procedures by Input Source" (P.25–46) for details.

Q



• You can set your preferred sound quality. See "Audio Settings" (P.47–60) for details.

Important Information

Supported Disc Formats

Disc	Icon in this manual	Explanation
Commercially available music CDs		 You may not be able to play discs that do not conform to the CD standard, such as Copy Control CDs.
CD-R/CD-RW discs recorded in CD-DA format		 Discs must be finalized during writing.
MP3/WMA/AAC files recorded on		 Discs must be finalized during writing. In this manual, MP3, WMA and AAC files are referred to collectively
CD-ROM/CD-R/CD-RW discs		as "audio files".

• Depending on the equipment or recording mode used for recording onto a CD-ROM, CD-R or CD-RW disc, and on the type of CD-ROM, CD-R or CD-RW disc used, you may not be able to play the disc on this system.

Precautions when writing data to discs

- Discs recorded in Packet Write mode or UDF (Universal Disc Format) cannot be played.
- When writing data to a disc, always close the session or finalize the disc. Discs that have not been finalized or that have
 sessions that were not closed may not play back correctly.
- Depending on the specifications of the writing software used, the recorded folder names and file names may not be displayed correctly.
- Playback of multi-session discs or discs that contain large numbers of folders may take longer to begin than for normal discs.
- If you write audio files and music CD tracks (CD-DA format) to the same disc, the disc may not play correctly.
- Before writing audio files to a disc, check that the files will play back correctly on the PC being used to write the files. When writing ends, check that the written files are played back correctly.
- Use the correct file extensions (mp3, wma, m4a) in the names of audio files. Files without file extensions will not be played. Also, do not use audio file extensions (mp3, wma, m4a) for files that are not audio files. For more information on file extensions, see "Supported Audio Files" on the right.

Supported Audio Files

On this system, you can play CD-ROM, CD-R and CD-RW discs containing the audio file types listed below (MP3, WMA and AAC).

MP3 files

File formats: MPEG 1 Audio Layer 3/ MPEG 2 Audio Layer 3/ MPEG 2 Audio Layer 3, Lower sampling rate (MPEG 2.5) Extension: .mp3

Sampling frequency:

MPEG 1 Audio Layer 3: 32 kHz/ 44.1 kHz/ 48 kHz MPEG 2 Audio Layer 3: 16 kHz/ 22.05 kHz/ 24 kHz MPEG 2.5: 8 kHz/ 11.025 kHz/ 12 kHz

Bit rate:

MPEG 1 Audio Layer 3: 32 kbps – 320 kbps MPEG 2 Audio Layer 3: 8 kbps – 160 kbps MPEG 2.5: 8 kbps – 160 kbps

WMA files

File format: Windows Media™ Audio compliant Extension: .wma Sampling frequency: 32 kHz/ 44.1 kHz/ 48 kHz Bit rate: 48 kbps – 192 kbps

- Files created using functions in Windows Media[™] Player 9 or later cannot be played.
 - WMA Professional
 - WMA Lossless
 - WMA Voice

AAC files

File format: MPEG-4 AAC (created in iTunes[™] 4.1 to 7.3) Extension: .m4a

Sampling frequency: 16 kHz/ 22.05 kHz/ 24 kHz/ 32 kHz/ 44.1 kHz/ 48 kHz

Bit rate: 32 kbps - 320 kbps

 Files encoded using Apple's Lossless Encoder cannot be played.

Disc formats

ISO 9660 Level 1 ISO 9660 Level 2 Joliet Romeo

File number limitations on discs

Max. files/folders: 512 in total Max. folders: 255 Files per folder: 255

Maximum number of displayable characters

File names: 64 (including file extension) Folder names: 64 Tag display (Title/Album/Artist) ID3 v1.0/ 1.1: 30 ID3 v2.2/ 2.3/ 2.4: 128

 This system is capable of displaying alphanumeric characters. Other character types are displayed as asterisks (*).

Other notes

- Note that even where audio files comply with the above standards, playback may fail due to factors such as the disc characteristics or recording conditions.
- Playback may also fail depending on the specifications of the encoding software or the settings used for encoding.
- DRM (Digital Rights Management) files cannot be played.
- Audio files encoded using VBR (Variable Bit Rate) may use bit rates that fall outside the supported range. Audio files with bit rates outside the supported range cannot be played.
- Apple and iTunes are trademarks of Apple Inc., registered in the U.S. and other countries.
- Windows Media is a trademark of Microsoft Corporation registered in the U.S. and other countries.

Handling Discs

Handling precautions

Hold a CD taking care not to touch the played surface.

Discs playable on the system

This system can play back a CD (12 cm, 8 cm), CD-ROM, CD-R, CD-RW or the audio part of a CD-EXTRA disc.

Notes on CD-ROM/CD-R/CD-RW discs

If the CD-ROM, CD-R or CD-RW disc in use has a printable label surface, the disc may be unable to be taken out of the system due to sticking of the label surface. To prevent malfunction of the system, do not use such a disc.

Cautions on CD discs



A disc without this marking may be unable to be played back correctly.

The disc rotates at a high speed during playback. Never use a cracked, chipped or greatly warped disc. Otherwise, damage or malfunction of the player may result.

Also, do not use a disc with a non-circular shape as this may result in malfunction.

Notes on transporting or moving the system

Before transporting or moving this system, take the following actions:

- 1 Remove any CDs from the unit.
- 2 Press the [CD>/II] key and check that the "CD NO DISC" message is displayed.
- ③ Wait a few seconds and then turn the system off.
- (4) If there are any other components connected to the system, check that they are all turned off before disconnecting the cables.

Procedures by Input Source

This chapter explains the operation procedures for each input source.

For information on the sound quality settings and component settings regardless of the input source, see "Audio Settings" (P.47) and "Component Settings" (P.61).

If an error is displayed or a problem arises, see "Maintenance" (P.71).



CD

Playing a CD	
Selecting Folder Playback Mode	
CD Program Playback Mode	32
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RDS (Radio Data System)

- PS (Program Service) Name Display 40
- Searching for a Desired Program Type (PTY Search) 41

External Components

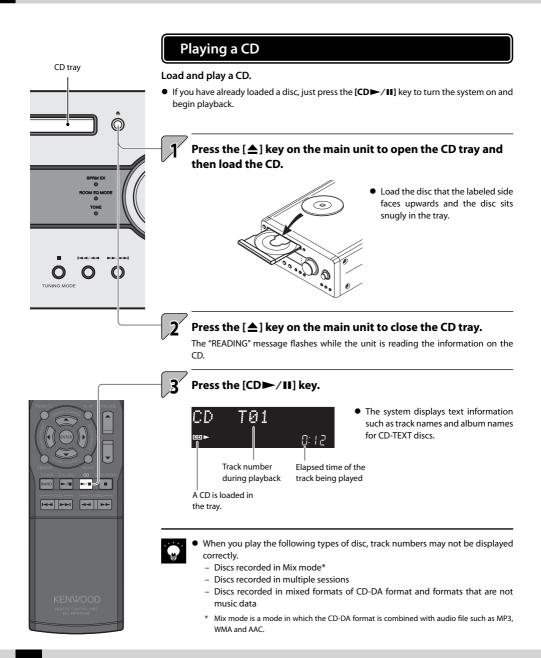
- Playback from External Components 42
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D.AUDIO

- Adjusting the Digital Audio Player Input Level 46



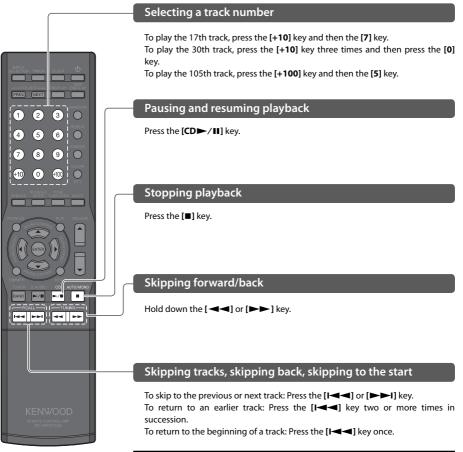
Playing a CD. As well as normal playback, you can use folder playback, program playback, random playback and repeat playback.



Related Information

Operations during CD playback







MP3/WMA/AAC

- When you stop playback by pressing the [I] key, the track being played is stored and pressing the [CD>/II] key restarts playback from the beginning of that track. (Resume function)
- The Resume function also works if you switch to another input source during playback.
- To cancel the resume function, press the [**B**] key twice.



Switching the time display

CD

The display changes as shown below each time you press the **[TIME DISPLAY]** key.

During CD track playback/Program playback/All-tracks repeat playback



During single-track repeat playback/Random playback

Elapsed time for 1 track Remaining time for 1 track

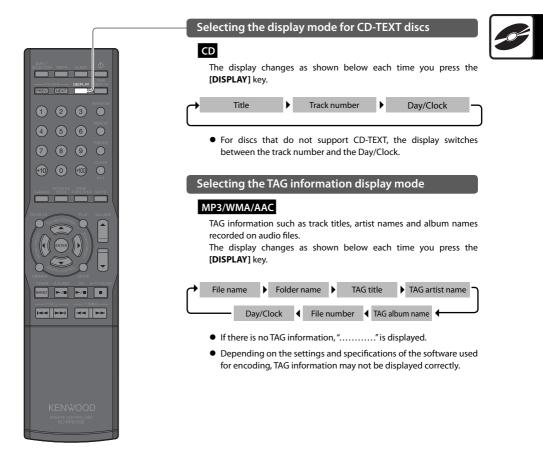
• When the total displayed time is 1000 minutes or more, "---:--" is displayed.

MP3/WMA/AAC

Only the elapsed time for 1 track is displayed.

Supported Audio Files → P.23

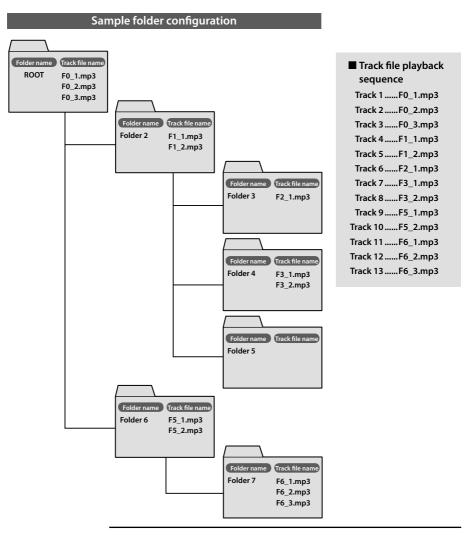
● Audio Settings → P.47 onwards



Playback sequence for folders and track files

MP3/WMA/AAC

When you play a disc containing recorded audio files, the track files on the disc are played sequentially beginning with the files in the ROOT folder, as shown in the figure.





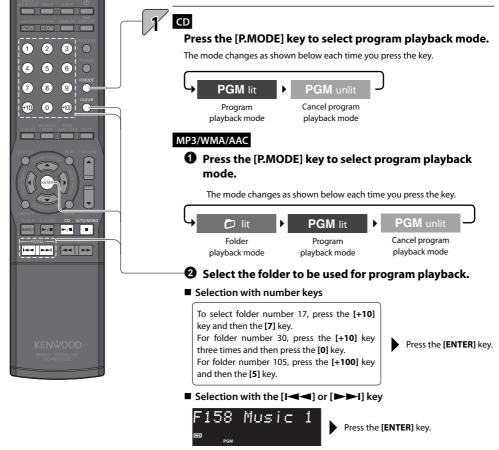
• If a recorded folder contains no tracks, that folder cannot be selected.

• Adding a number from "01" to "99" to the beginning of each file name before you record the files onto the disc allows you to set the playback sequence.

CD Program Playback Mode

This mode lets you selectively play your favorite tracks on a CD (up to 32 tracks).

- Press the [CD>/II] key to switch the input source to CD.
 Playback begins when you switch the input source, so press the [I] key to stop playback.
- If you are already playing the CD, press the [I] key to stop playback.



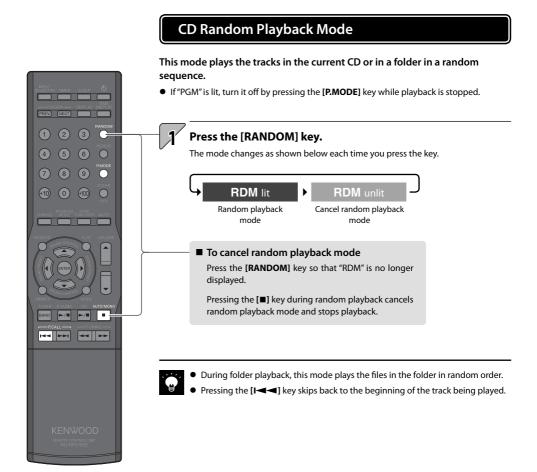
When folder number 158 is selected.

- If you enter the wrong information, press the [CLEAR] key before pressing the [ENTER] key and then enter the information again.
- Press the [ENTER] key within 20 seconds after selecting a folder.





If you turn the system off or remove the CD for which program playback is set, the information in the specified program is erased.





Receiving Broadcast Stations

This section explains how to listen to the FM/AM radio and set radio stations.

Listening to FM/AM Radio

 Simply pressing the [TUNER/BAND] turns on the system and allows you to listen to the radio.

Press the [TUNER/BAND] key to select "FM" or "AM".

Each time you press the key, the band switches between "FM" and "AM".

Select a station.

Choosing from stored stations (Preset Call)

Select a station that you have stored.

• See P.38, 39 for more information on presets.

Selection with the [P.CALL] keys

To display the next stored station: Press the [I

To run through the sequence of stored station at intervals of roughly 0.5 seconds: Press and hold the [I = I] (I = I) key.

Selection with number keys

To select P17, press the [+10] key and then the [7] key. To select P23, press the [+10] key twice and then press the [3] key.

 \cap

44 66

2 3

1

4 5 6

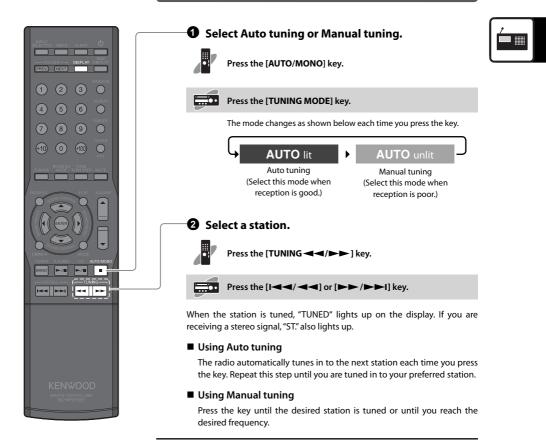
7 8 9

+10



Presetting Stations Automatically (AUTO MEMORY) → P.38
 Presetting Stations Manually (Manual Preset) → P.39
 Audio Settings → P.47 onwards

Choosing from stations that are not stored (Auto/Manual tuning)





- There is no sound while Auto/Manual tuning is in progress.
- Auto tuning provides stereo reception while manual tuning provides monaural reception.
- The display changes as shown below each time you press the [DISPLAY] key.

FM:

Program service name \rightarrow Preset No. \rightarrow Day/Clock

When the program service name is not stored:

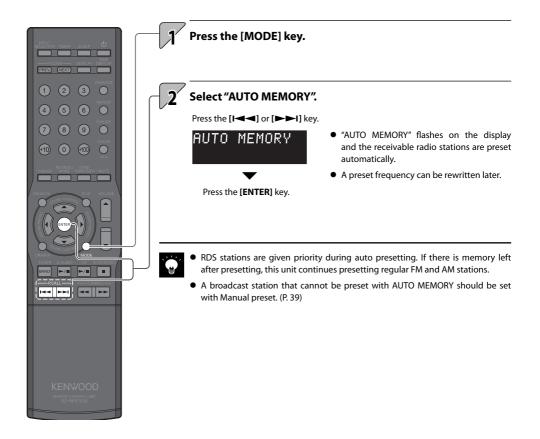
Preset No. \rightarrow "NO PS" \rightarrow Day/Clock

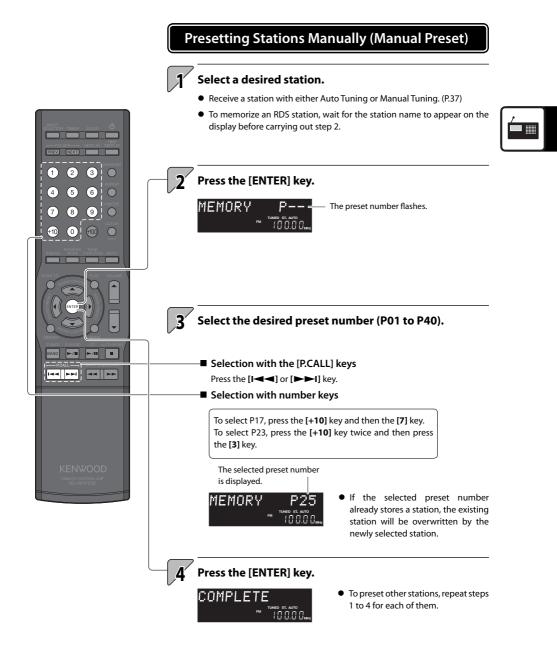
AM:

Preset No. → Day/Clock

Presetting Stations Automatically (AUTO MEMORY)

- Up to 40 stations can be preset in the system.
- For use of the RDS function, stations must be memorized by AUTO MEMORY.







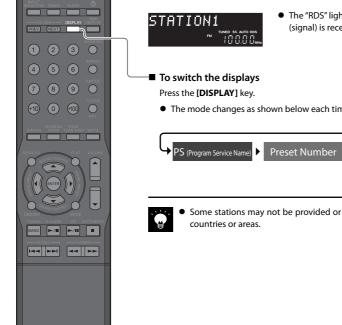
RDS (Radio Data System)

This system is designed for RDS reception, it can extract the information from the broadcast signal for use with various functions such as automatic display of the station name.

- Select the FM band.
- Preset RDS stations with the AUTO MEMORY function. (P.38)

PS (Program Service) Name Display

When an RDS broadcast is received, the station name is automatically displayed.



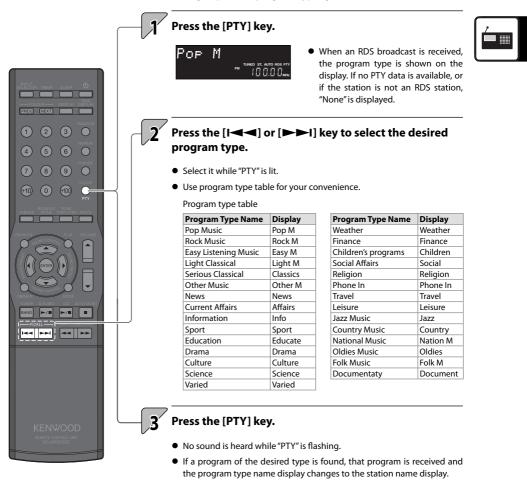
- The "RDS" lights up when an RDS broadcast (signal) is received.
- The mode changes as shown below each time you press the key.

► PS (Program Service Name)	Preset Number	۲	Day/Clock	

Some stations may not be provided or be given different names depending on

Searching for a Desired Program Type (PTY Search)

The tuner automatically searches for a station which is currently broadcasting a specified program type (genre).



To cancel the PTY search

Press the [PTY] key.



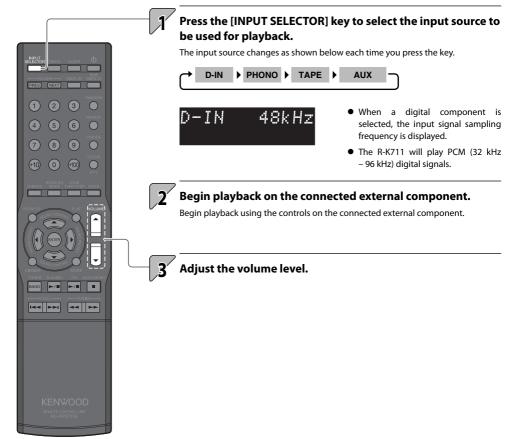
If a program of the desired type cannot be found, "NO PROGRAM" flashes, then after several seconds the display returns to the original display. **External Components**

You can play tracks by connecting external components to the system.

Playback from External Components

Connect the external component to the system as described in "Connecting Other Accessories (Commercially Available Units)" (P.12).

- When connecting external components, always turn this system and the external components off beforehand.
- Refer also to the instruction manual for the external component to be connected.



Related

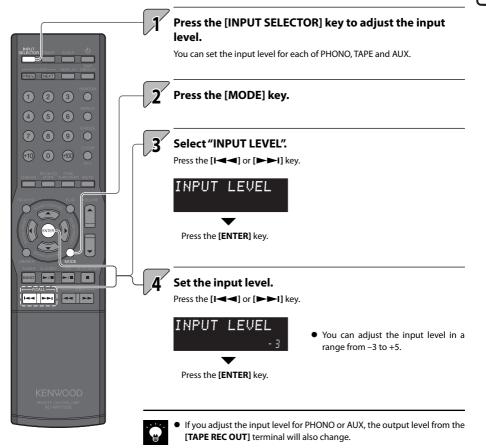
Information

Adjusting the External Component Input Level

Use the procedure below to adjust the input level for the external component connected to the [PHONO IN], [TAPE PLAY IN] or [AUX IN] terminal.

Use this adjustment when the volume from an external component is noticeably higher or lower than other input sources at the same volume setting.





D.AUDIO

You can connect a Kenwood digital audio player (referred to hereafter simply as "digital audio player") to the system and use it to play tracks.

Playback from a Digital Audio Player

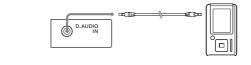
Use this procedure to connect a digital audio player to the system and use it to play tracks.

- When connecting the digital audio player, always turn this system and the digital audio player off beforehand.
- Refer also to the instruction manual for the digital audio player to be connected.
- Connecting the digital audio player using the dedicated cable allows you to operate the digital audio player using the main unit or the remote control.

Compatible Kenwood digital audio players

HDD audio player	Memory audio player
HD20GA7	M1GC7

Connect the digital audio player to the [D.AUDIO IN] terminal on the rear panel of the main unit.



Turn on the digital audio player.

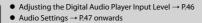
Press the [D.AUDIO►/II] key to begin playback.

- Simply pressing the [D.AUDIO>/II] key turns on the system and begins playback.
- If the digital audio player is not connected using the dedicated cable, use the controls on the connected digital audio player.



- If you use the dedicated cable for the connection, the volume and sound quality settings on the digital audio player are disabled.
- When you have finished using the digital audio player, disconnect the player's connection cable from the [D.AUDIO IN] terminal.

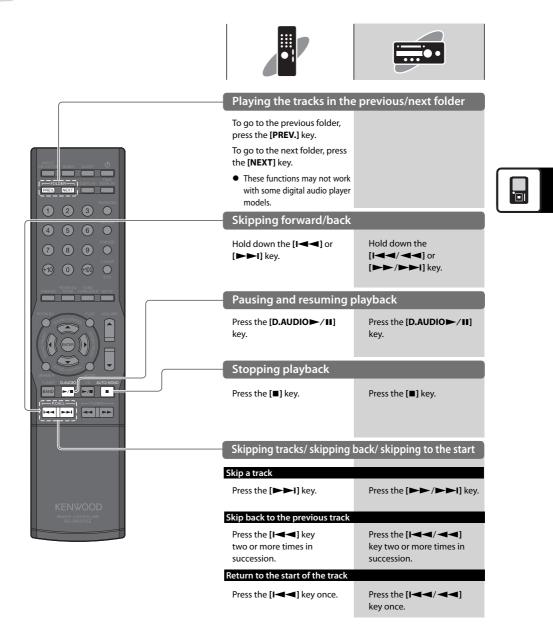




Related

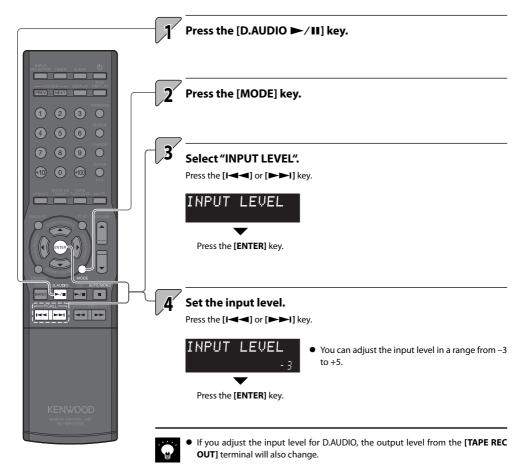
Information

Operations during digital audio player playback



Adjusting the Digital Audio Player Input Level

Use the procedure below to adjust the input level for the external component connected to the [**D.AUDIO IN**] terminal. Use this adjustment when the volume from an external component is noticeably higher or lower than other input sources at the same volume setting.



Audio Settings

Use the procedures in this chapter to specify the sound quality settings for your stereo system.

These procedures allow you to set up the Room Equalizer function, which will measure the acoustic characteristics of your room and optimize the system's acoustic effects. You can also use the system's digital sound equalizer function to customize the sound to your own preferences.

ROOM EQ (Room Equalizer)

Automatically Setting the Acoustic Effects for the Room	
(AUTO ROOM EQ)	48

Digital Sound Equalizer

Adjusting Super-Bass Tones (D-BASS)	52

Adjusting the Range Levels (TONE/TURN OVER) 53

Sound Presets

Registering Sound Effects	56
Using Sound Presets	57
Disabling Equalizer Effects (FLAT)	58

Supreme EX

Setting Supreme EX	59
--------------------	----

BALANCE

 Adjusting the Speaker Volume Balance 		0
--	--	---



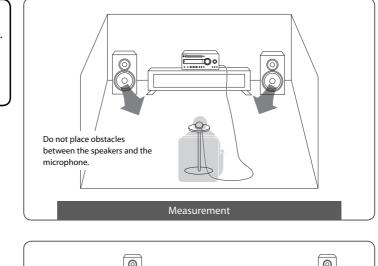
ROOM EQ (Room Equalizer)

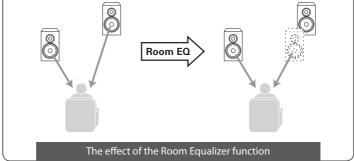
The system measures the test signal emitted from the speakers using the microphone supplied with the system and automatically sets the optimum acoustic effect for the size of the room and the location in which the stereo is installed. You can also combine this with the D-BASS and TONE/TURN OVER effects.

Automatically Setting the Acoustic Effects for the Room (AUTO ROOM EQ)

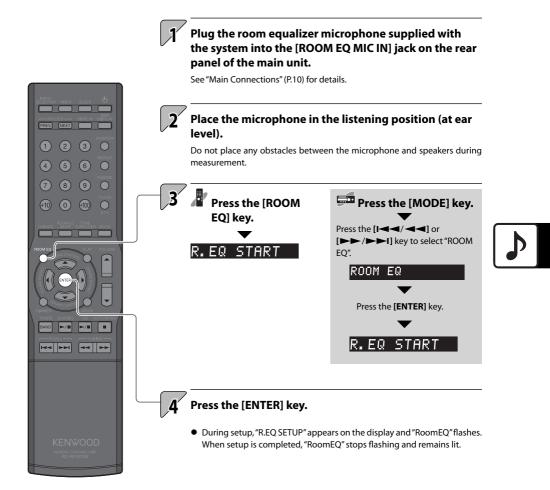
The system measures the acoustic characteristics using the microphone supplied with the system and automatically sets the following acoustic effects:

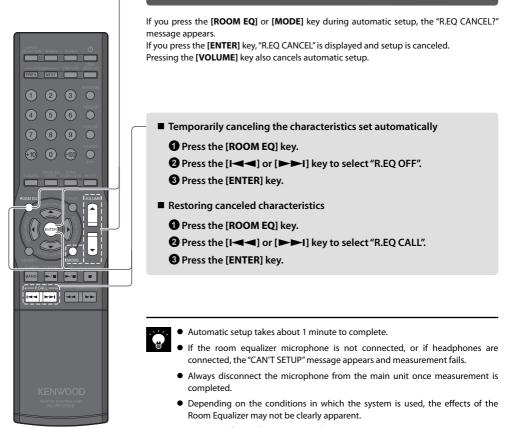
- The sound delay from speakers
- The volume level difference between the left and right speakers
- The speaker frequency characteristics and the acoustic characteristics in the room





The speakers emit a very loud test signal during the measurement. Carefully consider the impact on your neighbors and on children, particularly at night.



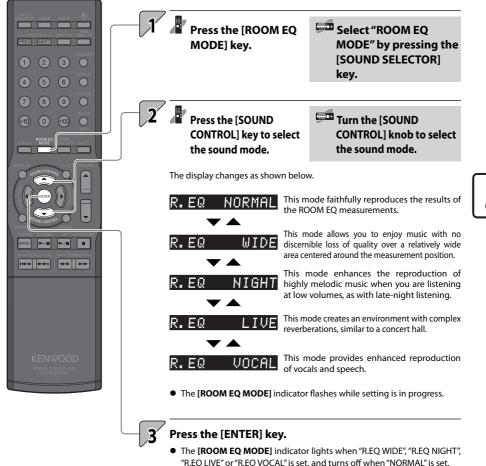


Canceling automatic setup

• Do not perform other operations during automatic setup.

Matching the Acoustic Effect to the Conditions

Carry out the "AUTO ROOM EQ" (P.48) procedure beforehand. This procedure then allows you to select the sound mode based on the selected sound effect and your listening conditions.





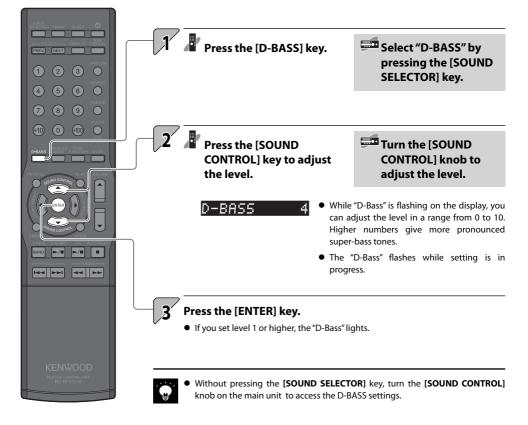
"ROOM EQ MODE" will not work prior to automatic setup or when "R.EQ OFF" is selected.

Digital Sound Equalizer

This system features a Digital Sound Equalizer function that uses DSP-based digital processing. This provides more detailed settings that allow you to adjust the sound to your own preferences.

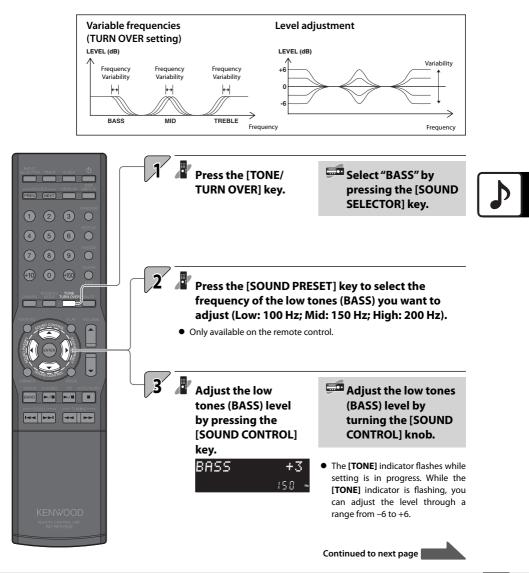
Adjusting Super-Bass Tones (D-BASS)

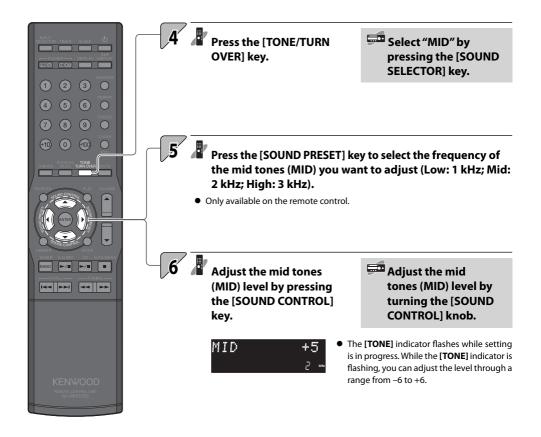
This feature lets you tailor the impact of super-bass tones to your own preferences. You can also combine this with the ROOM EQ and TONE/TURN OVER effects.

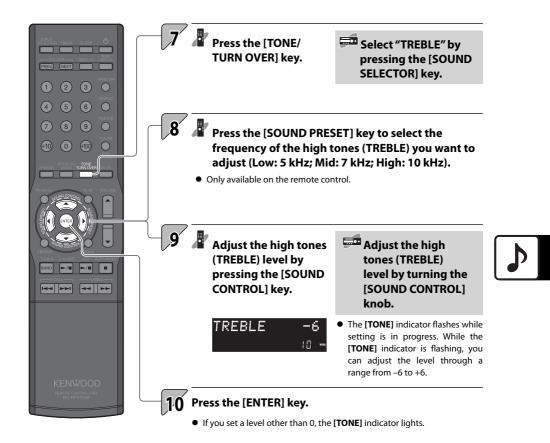


Adjusting the Range Levels (TONE/TURN OVER)

You can adjust the low-, mid- and high-range tones to match your preferences (TONE). You can make 3 levels of still finer adjustments to the low-, mid- and high-range tones (TURN OVER). You can also combine this with the ROOM EQ and D-BASS effects.









If you do not need to adjust all the range levels, press the **[ENTER]** key to end the settings after you have finished the range level adjustments you want to make.

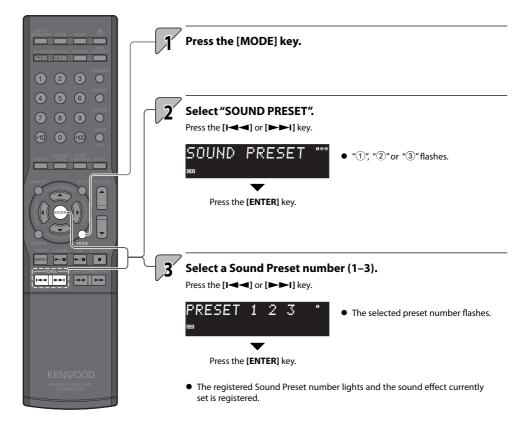
Sound Presets

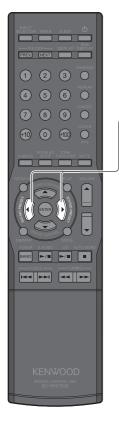
You can register up to 3 of the sound effects you have set as Sound Presets. You can then recall and apply the registered Sound Presets simply by pressing the [SOUND PRESET] key.

Registering Sound Effects

Use this procedure to register up to 3 of the sound effects set using AUTO ROOM EQ, ROOM EQ MODE, D-BASS or TONE/TURN OVER.

• First use AUTO ROOM EQ (P.48), ROOM EQ MODE (P.51), D-BASS (P.52) or TONE/TURN OVER (P.53) to set a sound effect.





Using Sound Presets

Use this procedure to recall and apply a registered Sound Preset.

• Register the sound effect you want to use as a Sound Preset beforehand. (P.56)

Select a preset number by pressing the [SOUND PRESET] key.

SOUND PRESET ° ∞

• The original display reappears after 3 seconds.





Disabling Equalizer Effects (FLAT)

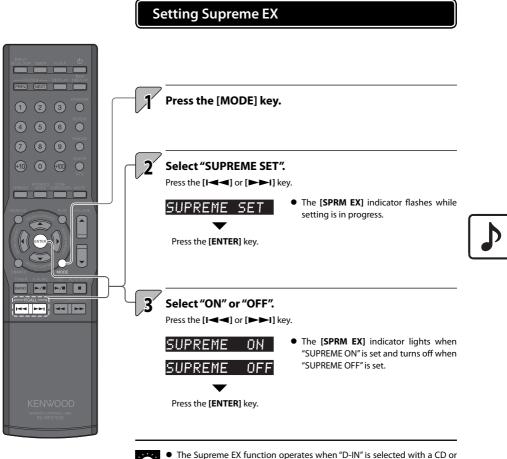
Press the [FLAT] key.



- The "D-BASS" and "TONE/TURN OVER" levels are set to 0 and "NORMAL" is set in "ROOM EQ MODE".
- Press the [FLAT] key again to restore the original settings.

Supreme EX

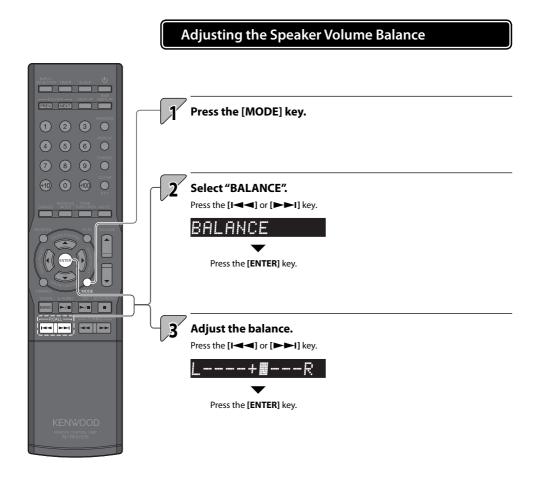
Supreme EX is Kenwood's original sound quality enhancement technology and is used for playing CDs and audio files or for playback using components connected to a digital input terminal.



- external component.
- Even when "D-IN" is selected, the [SPRM EX] indicator does not light if the input signal frequency is 96 kHz or 88.2 kHz.

BALANCE

Use this procedure to adjust the volume balance for the left and right speakers.



Component Settings

As well as the basic time settings, this chapter explains various functions that make the system easier to use, such as the timer and display settings.

Setting the Timer

Display Settings

Setting the Display Brightness (DIMMER)		67
---	--	----

- Setting the Time69
- Auto Power Save (A.P.S.)70



Setting the Timer

The system features the Sleep Timer, which automatically turns the system off after a set interval, and the Program Timer, which starts playback at a specified time.

Setting the Sleep Timer (SLEEP)

This function automatically turns the system off after a set interval. You can set an interval between 10 and 90 minutes in 10-minute increments until the system is turned off.



Press the [SLEEP] key.

The interval increases by 10 minutes each time you press the key. The setting after 90 minutes turns the timer off.



During Sleep Timer setting



 While the Sleep Timer is running, you can check the remaining time by pressing the [SLEEP] key.

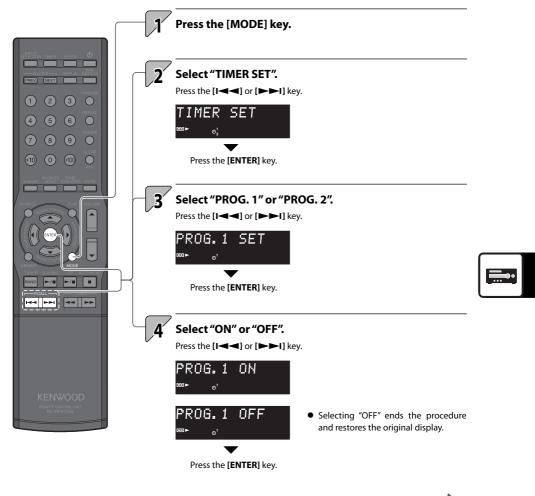
To cancel the Sleep Timer

Press the power [()] key to turn the system off (Standby) or press the [**SLEEP**] key so that "()" is no longer displayed.

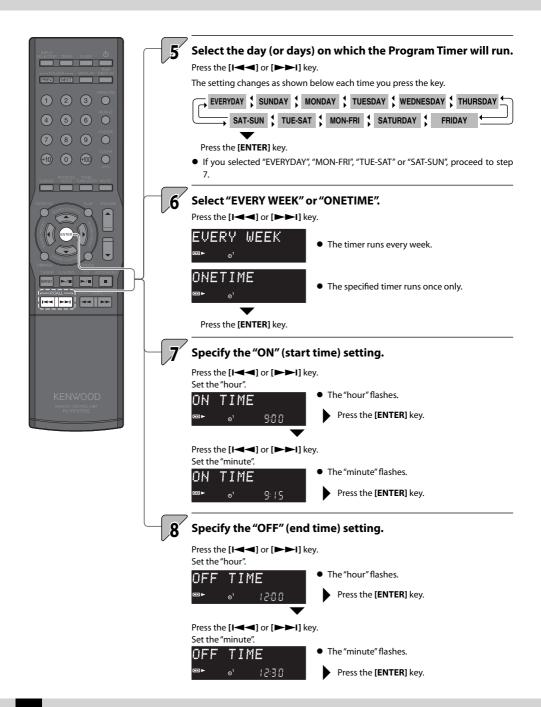
Setting the Program Timer (PROGRAM)

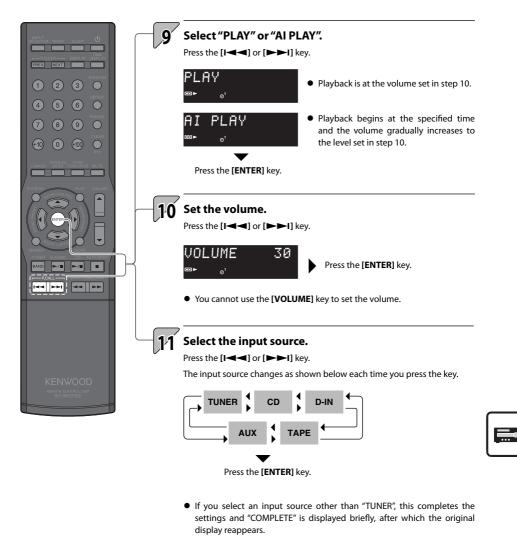
This function allows you to use the timer to automatically start playback at a specified time. You can set two timers (PROG. 1 and PROG. 2) at the same time. You can use the timer to activate CD, radio or external component.

- Set the system's clock to the correct time beforehand. (P.69)
- Separate the times for PROG. 1 and PROG. 2 by at least 1 minute to ensure that their operating times do not overlap.



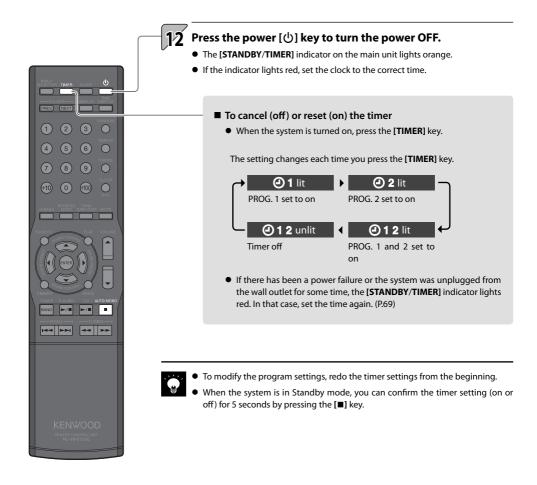
Continued to next page





● If you select "TUNER", use the [I◄◀] or [▶►I] to select a preset number and then press the [ENTER] key. This completes the settings and "COMPLETE" is displayed briefly, after which the original display reappears.

Continued to next page

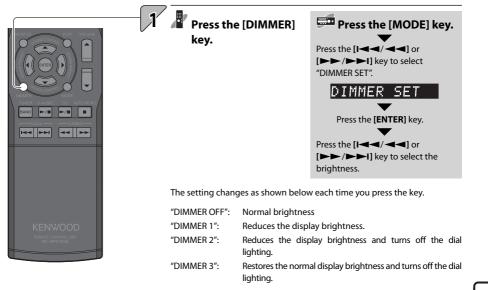


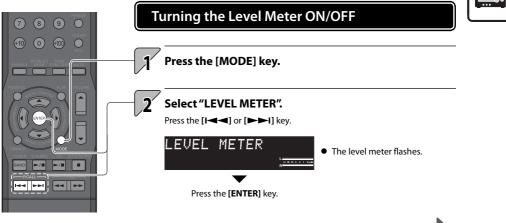
Display Settings

Use these settings to adjust the brightness of the display and to specify the settings for the main unit dial lighting and the level meter.

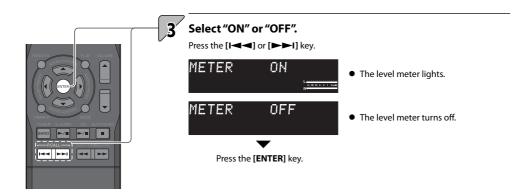
Setting the Display Brightness (DIMMER)

Use this procedure to adjust the display brightness. Adjust the brightness according to your preferences and the conditions in the room.



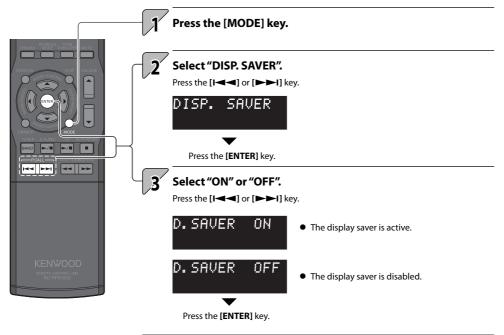


Continued to next page



Turning the Display Saver ON/OFF

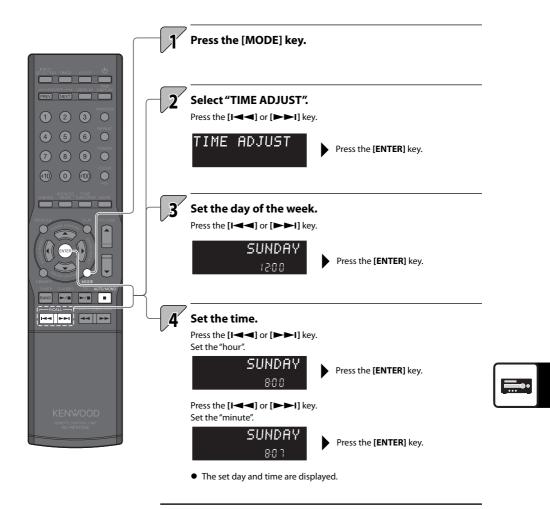
If the system is not used at all for a set period, this function scrolls the display to prevent burn-in of the text on the display and uneven display brightness.



 When you are playing a CD, the display saver is activated if the system is not used at all for 10 minutes after the CD stops playing. If you selected another input source, the display saver is activated if the system is not used at all for 10 minutes after the last key is pressed.

Setting the Time

Set the system clock to the correct time. If you use the Program Timer for playback when the time is not set correctly, you will not be able to run the program at the correct time.

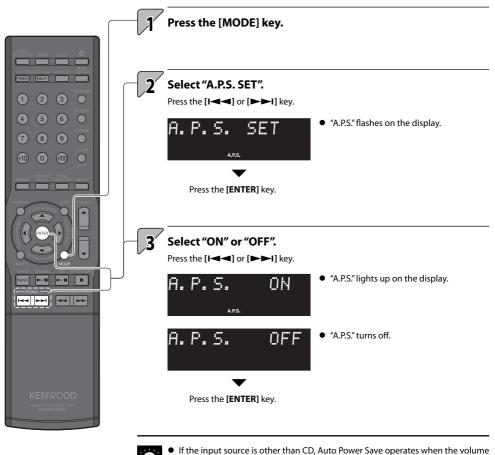




- If you make a mistake, redo the procedure from the beginning.
- If there is a power failure or the system is unplugged from the wall outlet for some time, set the time again.
- Pressing the [**1**] key while the system is in the Standby mode will display the time for 5 seconds.

Auto Power Save (A.P.S.)

Auto Power Save (A.P.S.) is a function that automatically turns the system off if it is not used at all for 30 minutes after a CD stops playing.



- is set to zero (VOLUME 0) or MUTE is set to on.
- When recording on external components, turn A.P.S. off or adjust volume to above zero.

Maintenance

This chapter explains how to deal with error messages displayed on the system or problems that may arise. It also describes how to store and maintain your system so that it continues to give pleasure for many years to come.

Messages72
Troubleshooting73
Glossary of Terms76
Care and Storage77
Specifications78



Messages

Displayed Message	Meaning
CAN'T PLAY	You are attempting to play an audio file that cannot be played on this system. →The system automatically skips to the next audio file.
CAN'T SETUP	 The ROOM EQ microphone is not connected. →Connect the ROOM EQ microphone. Headphones are plugged into the [PHONES] jack. →Unplug the headphones.
CD NO DISC	There is no CD loaded. →Load a CD.
CD NO PGM	No tracks are programmed. →Program the tracks you want to listen to. (P.32) →Cancel program mode and use normal playback. (P.33)
CD NO TEXT	There is no text information on a CD-TEXT disc.
CD PGM FULL	An attempt was made to program a 33rd CD track. →You can only program up to 32 tracks. (P.33)
CHECK DISC	 The TOC^{*1} information cannot be read. →The disc is dirty. Clean the disc. (See "Care and Storage" on P.77.) The disc is not loaded correctly. →Set the disc in the tray correctly. (P.26) The disc contains no playable audio files.
Non-PCM	The [DIGITAL IN (OPTICAL)] terminal on the rear panel of the main unit is receiving non-PCM input signals. (P.13)
PROTECTED	An attempt was made to play an audio file with the copyright protection function enabled. →The system automatically skips to the next audio file.
R.EQ ERROR1	Measurement failed because the room being measured is too noisy. →Reduce the amount of ambient noise.
R.EQ ERROR2	Measurement failed because there is no signal input to the microphone.
TRAY OPEN	The CD tray is open. →Close the tray.
UNLOCK	The component connected to the [DIGITAL IN (OPTICAL)] terminal on the rear panel of the main unit is not turned on. Alternatively, there is no signal input.
kHz	The sampling frequency of the input PCM signals is outside the playable range.
	There is no TAG information. (P.29)

*1: In addition to audio signals, information called the Table of Contents (TOC) is recorded on each CD. The TOC is similar to the Contents page of a book and information such as the text, playing times and number of tracks includes some items that cannot be rewritten.

Apparent faults or malfunctions may be easily resolved. Before calling for service, check the table below for symptoms that match yours.

Amplifier/Speakers

Symptoms	Solution	Ref. page
There is no sound.	 Check that the system is connected properly, as described in "Connecting the System". 	10 - 13
	 Increase the volume. 	20
	 Cancel the MUTE setting. 	20
	 If there are headphones plugged into the main unit, unplug them. 	13
The [STANDBY/TIMER] indicator is flashing red and there is no sound.	 One of the speaker cords is short-circuited. Unplug the power cord and then reconnect the speaker cord. There may be an internal problem. Turn off the power to the main unit, unplug the power cord and request repairs. 	_
There is no sound	 Check that the headphone plug is inserted correctly. 	13
from the headphones.	 Increase the volume. 	20
	 Cancel the MUTE setting. 	20
There is no sound from "D-IN".	 Check that the system is connected properly, as described in "Connecting the System". Check whether "PCM" is selected as the digital audio output setting on the connected component. 	13
There is no sound from one of the speakers.	 Check that the system is connected properly, as described in "Connecting the System". Adjust the balance. 	10 60
There is a booming sound when I select PHONO as	 Insert the audio cord plugs securely into the [PHONO IN] jacks. 	12
the input source.	• Connect the signal earth wire to the [m] terminal.	12
The clock display is flashing.	 Set the time as described in "Setting the Time". 	69
The timer does not	 Set the time as described in "Setting the Time". 	69
work.	 Set a start time and end time for the program timer. 	63

Tuner

Symptoms	Solution	Ref. page
I can't get reception	• Connect the antennas.	10
from a radio station.	 Select the broadcast band (AM or FM). 	36
	 Tune the radio to the frequency of the desired station. 	36
There is interference (noise).	 Install an outdoor antenna away from the road. Turn off any electrical appliances that may be causing interference. Move the system away from the TV. 	_
I have used Auto Memory	 Run Auto Memory again. 	38
and pressed the [P.CALL] key, but I still can't get radio reception.	 Manually preset stations with frequencies that you can receive. 	39

CD

Symptoms	Solution	Ref. page
l insert a CD but it won't play.	 Load the disc correctly with the label side facing upward. Clean the disc. (See "Care and Storage".) 	26 77
	 Allow any condensation to evaporate. (See "Be careful against condensation".) 	77
There is no sound.	Press the [CD>/II] key.	26
	 Clean the disc. (See "Care and Storage".) 	77
Playback skips.	 Clean the disc. (See "Care and Storage".) 	77
I can't play some audio	• The system will not play audio files that are corrupted.	
files.	 Check that the system can play the audio file. 	23
There is a delay until playback starts.	 There may be a delay prior to playback if there are large numbers of folders. 	30
The TAG information is not displayed correctly.	 Refer to "Supported Audio Files" to check which TAG information can be displayed on this system. 	23

Components connected to the D.AUDIO IN terminal

Symptoms	Solution	Ref. page
I can't use the remote control or main unit to control my Kenwood digital audio player.	 Connect the player using the dedicated cable. Check whether the connected model is compatible. 	12 44

Remote control

Symptoms	Solution	Ref. page
The remote control does not work.	 Insert new batteries. Use the remote control from within its effective range. 	17 17

Resetting the microcomputer

Symptoms	Solution
Microcomputer malfunction (the system does not work, the display is faulty, etc.).	 Malfunctions may occur due to an external cause or because a connection cord was unplugged while the system was turned on. Use the procedure below to reset the microcomputer. Unplug the power cord from the AC wall outlet.
	Plug the power cord back in while holding down the power [U] key on the main unit.
	 When the microcomputer is reset, the display shown on the right appears. If you reset the microcomputer with a disc loaded, the disc is automatically ejected. In that case, remove the disc and close the CD tray. Bear in mind that resetting erases any stored information and restores the system's default settings.



Glossary of Terms

Term	Meaning	Page
AAC	An abbreviation for "Advanced Audio Coding". This is a compression standard that applies only to the audio component in image compression methods used for digital broadcasting, etc.	23
Bit rate	A number indicating the amount of information processed per second. The higher the bit rate, the better the sound quality.	23
CD-DA	Refers to music CDs. Almost all discs normally referred to as "CDs" are actually CD-DA discs.	22
CD-TEXT	A generic name for music CDs that contain text information such as the disc name, artist names and track names.	29
МРЗ	An audio compression method developed by Germany's Fraunhofer IIS that achieves high rates of data compression by discarding data that is not readily audible by humans. MP3 can compress data down to rates of approximately 1/11 (128 kbps) while retaining sound quality equivalent to a music CD.	23
Sampling frequency	A number that indicates the number of times per second that analog signals are sampled for conversion to digital signals. The sampling frequency for music CDs is 44.1 kHz. Normally, the higher the sampling frequency, the better the sound quality.	23
WMA	An abbreviation for the "Windows Media™ Audio" audio compression and encoding system developed by Microsoft Corporation of the U.S.	23

Care and storage of main unit

Do not place in the following locations

- Place exposed to direct sunlight.
- Place subjected to excessive humidity or dirt.
- Place exposed to direct heat from heating equipment.

Be careful against condensation

When the difference in temperatures between the main unit and the environmental air is large, dew may be condensed inside the main unit and may cause malfunction of the main unit. If this happens, leave the main unit for a few hours until its internal mechanisms are dried up.

Take special care against condensation when the main unit is moved between places with a large temperature difference or into a room with high humidity.

When a main unit becomes dirty

When the front panel or case gets dirty, wipe with a soft dry cloth. Do not use lacquer thinner, benzine, alcohol or contact revitalizer for these chemicals will cause discoloration or deformation.

Care and storage of CD

Before storing the CD

When the main unit is not to be used for a long period, take out the CD and store in the case.

When a CD becomes dirty

- When a disc is contaminated with fingerprints or other stains, wipe gently in the radial direction using a soft dry cloth.
- Do not use an analog disk cleaner, lacquer thinner, benzine or alcohol.
- Do not use a disc accessory (stabilizer, protective sheet, protective ring, etc.) or lens cleaner.

Other cautions

- Do not write letters on a CD using a pencil or ballpoint pen.
- Do not use a CD if the sticker or label on it is peeled off or bond is overflowed around the sticker or label.
- Do not stick a sheet of paper, sticker or label on a CD.



Main unit

[Amplifier]

Effective output power during STEREO operation
30 W + 30 W RMS (1 kHz, 10 % T.H.D., 6 Ω)
Total harmonic distortion0.005% (1 kHz, 15 W, 6 Ω)
Tone control characteristics
BASS
(TURN OVER 100 Hz) ±3.0 dB (at 100 Hz)
(TURN OVER 150 Hz) ±5.0 dB (at 100 Hz)
(TURN OVER 200 Hz) ±5.6 dB (at 100 Hz)
MID
(TURN OVER 1 kHz)±6.0 dB (at 1 kHz)
(TURN OVER 2 kHz)
(TURN OVER 3 kHz)
TREBLE
(TURN OVER 5 kHz)±5.6 dB (at 10 kHz)
(TURN OVER 7 kHz)±4.9 dB (at 10 kHz)
(TURN OVER 10 kHz)±3.0 dB (at 10 kHz)
D-Bass (+10)+13.5 dB (40 Hz, Vol. 60)
Input terminals (Sensitivity/Impedance)
PHONO (MM)
LINE (AUX, TAPE) 450 mV / 22 kΩ
LINE (D.AUDIO) 250 mV / 11 kΩ
Output terminals (Level/Impedance)
TAPE
SUB WOOFER PRE OUT 2 V / 620 Ω

[Digital unit]

Sampling frequencies

Optical......-15 dBm – –24 dBm, 660 nm ±30 nm

[Tuner]

FM tuner	
Reception frequency range	87.5 MHz to 108.0 MHz
AM tuner	
Reception frequency range	531 kHz to 1,602 kHz

[CD player]

Scanning method	Semiconductor laser
D/A Conversion	1 bit
Oversampling	128 fs (11289.6 kHz)
Frequency response	
Signal to noise ratio (TAPE REC OUT)	More than 104 dB

[Power Supply, etc.]

Power consumption	
Power consumption (Standby)	0.3 W or less
Dimensions	
Width	
Height	
Depth	
Weight (net)	5.6 kg (12.35 lb)

- Design and specifications are subject to change without notice.
- Full performance is not guaranteed in extremely cold environments (under water-freezing temperatures).

KENWOOD

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model

Serial Number -